Job Aid 7

Active Directory Sizer Tool

The Active Directory Sizer is an important tool you can use to do capacity planning for your Active Directory and Exchange 2000 environment. The tool can be downloaded from Microsoft's web site.

Based on user input and internal formulas, Sizer estimates the number of the following:

- Domain controllers per domain, per site
- Global Catalog servers per domain, per site
- CPUs per machine and type of CPU
- Disks needed for Active Directory data storage

In addition, Sizer provides approximate estimates for the following:

- Amount of memory required
- Network bandwidth utilization
- Domain database size
- Global catalog database size
- Intersite replication bandwidth required

The list of information to be gathered per domain to accurately size the domain controllers includes:

- Total number of users in the domain and the total number of concurrent users
- Total number of attributes per user. Active Directory assigns each user a number of attributes. Additional attributes based on the business uses of the Active Directory service should be included in the estimate.
- Average number of groups a user belongs to. The number of groups a user belongs to can affect the time to process a logon request. The logon request evaluates user access by looking at the access granted to each group the user belongs to.
- Average logon rate per second during peak hours (interactive, batch, and network). Interactive logon type is intended for users who interactively use the computer. For example, a user logging on by using Terminal Services, a remote shell, or similar process. Batch logon type is intended for batch servers where processes might execute for a user without the user's direct intervention; or for higher-performance servers that process many clear-text authentication attempts at a time, such as mail or Web servers. Network logon type is intended for high-performance servers to authenticate clear text passwords. Network logon type is used to access other network resources, such as remote servers or printers.
- Password expiration rate (in days)
- Number of Windows 2000-based computers in the domain
- Number of other computers in this domain
- Number of other objects published in this domain. Other objects are any objects other than users and computers that will be included in Active Directory. For example, user groups, organizational units, contacts, printers or shares would be considered other objects.
- Desired average CPU utilization limit for each domain controller

- Preferred CPU type for domain controllers and the number of processors required of the CPU type specified above
- **Administration**. This section allows an administrator to specify the administrator-generated workload for object addition, deletion, or modification to Active Directory. Enter the planned average number of objects added, deleted, or modified by daily, weekly, or yearly intervals.
- **Microsoft Exchange 2000**. Microsoft Exchange 2000 Server uses Active Directory for directory services, transport, and name resolution. If planning to install Exchange 2000, enter the average number of messages per user per day and the average number of recipients for each message.
- **DNS related issues**. This section allows an administrator to specify whether Active Directory-integrated DNS zones will be used, the number of dial-in connections (per day) that will be made by computers joined to the domain, the duration of DHCP leases, and the behavior of the DNS Server aging and scavenging feature.
- **Other Active Directory-enabled application issues**. This section covers other Active Directory-enabled applications that are not specifically known by the tool. Changes introduced by Active Directory Connector (ADC) or other directory synchronization programs (such as Microsoft Directory Synchronization Services) should be estimated in operations per second for searching, adding, deleting, and modifying objects.

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